

PATENT  
Customer No. 22,852  
Attorney Docket No. 06502.0054-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
Ann M. WOLLRATH et al. ) Group Art Unit: Not Yet Assigned  
1.53(b) Divisional of ) Examiner: Not Yet Assigned  
Serial No 09/044,933, filed )  
March 20, 1998 )  
Filed Herewith )  
For: METHOD AND APPARATUS FOR )  
TRANSPORTING BEHAVIOR IN )  
AN EVENT-BASED )  
DISTRIBUTION SYSTEM )

Commissioner for Patents and Trademarks  
Washington, DC 20231

Sir:

**PRELIMINARY AMENDMENT**

Prior to the examination of the above application, please amend this application  
as follows:

**IN THE SPECIFICATION:**

Please amend the specification as follows:

Please insert the following new paragraph before the first line:

This is a division of application Serial No. 09/044,933, filed March 20, 1998,  
incorporated herein by reference.

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Please replace paragraphs 2, page 1, through paragraph 4, page 4 with the following:

Provisional U.S. Patent Application No. 076,048/60, entitled "Distributed Computing System," filed on February 26, 1998.

U.S. Patent Application No. 044,923/09, entitled "Method and System for Leasing Storage," and filed on March 20, 1998.

U.S. Patent Application No. 044,838/09, entitled "Method, Apparatus, and Product for Leasing of Delegation Certificates in a Distributed System," and filed on March 20, 1998.

U.S. Patent Application No. 044,834/09, entitled 'Method, Apparatus and Product for Leasing of Group Membership in a Distributed System," and filed on March 20, 1998.

U.S. Patent Application No. 044,916/09, entitled "Leasing for Failure Detection," and filed on March 20, 1998.

U.S. Patent Application No. 044,919/09, entitled "Deferred Reconstruction of Objects and Remote Loading for Event Notification in a Distributed System," and filed on March 20, 1998.

U.S. Patent Application No. 044,938/09, entitled "Methods and Apparatus for Remote Method Invocation," and filed on March 20, 1998.

U.S. Patent Application No. 045,652/09, (now U.S. Patent No. 6,134,603), entitled 'Method and System for Deterministic Hashes to Identify Remote Methods," and filed on March 20, 1998.

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U.S. Patent Application No. 044,790/09, entitled "Method and Apparatus for Determining Status of Remote Objects in a Distributed System," and filed on March 20, 1998.

U.S. Patent Application No. 044,930/09, entitled "Downloadable Smart Proxies for Performing Processing Associated with a Remote Procedure Call in a Distributed System," and filed on March 20, 1998.

U.S. Patent Application No. 044,917/09, entitled "Suspension and Continuation of Remote Methods," and filed on March 20, 1998.

U.S. Patent Application No. 044,835/09, entitled "Method and System for Multi-Entry and Multi-Template Matching in a Database," and filed on March 20, 1998.

U.S. Patent Application No. 044,839/09, entitled "Method and System for In-Place Modifications in a Database," and filed on March 20, 1998.

U.S. Patent Application No. 044,945/09, entitled "Method and System for Typesafe Attribute Matching in a Database," and filed on March 20, 1998.

U.S. Patent Application No. 044,931/, entitled "Dynamic Lookup Service in a Distributed System," and filed on March 20, 1998.

U.S. Patent Application No. 044,939/09, entitled "Apparatus and Method for Providing Downloadable Code for Use in Communicating with a Device in a Distributed System," and filed on March 20, 1998.

U.S. Patent Application No. 044,826/09, entitled "Method and System for Facilitating Access to a Lookup Service," and filed on March 20, 1998.

U.S. Patent Application No. 044,932/09, entitled "Apparatus and Method for Dynamically Verifying Information in a Distributed System," and filed on March 20, 1998.

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U.S. Patent Application No. 09/030,840, entitled "Method and Apparatus for Dynamic Distributed Computing Over a Network," and filed on March 20, 1998.

U.S. Patent Application No. 044,936/09, entitled "An Interactive Design Tool for Persistent Shared Memory Spaces," and filed on March 20, 1998.

U.S. Patent Application No. 044,934/09, entitled "Polymorphic Token-Based Control," and filed on March 20, 1998.

U.S. Patent Application No. 044,915/09 (now issued as U.S. Patent No. 6,138,238), entitled "Stack-Based Access Control," and filed on March 20, 1998.

U.S. Patent Application No. 044,944/09, entitled "Stack-Based Security Requirements," and filed on March 20, 1998.

U.S. Patent Application No. 044,837/09, entitled "per-Method Designation of Security Requirements," and filed on March 20, 1998.

Please replace paragraph 2, page 12, with the following:

The lookup service 212 defines the services that are available for a particular Djinn. That is, there may be more than one Djinn and, consequently, more than one lookup service within the exemplary distributed system 100. The lookup service 212 contains one object for each service within the Djinn, and each object contains various methods that facilitate access to the corresponding service. The lookup service 212 and its access are described in greater detail in co-pending U.S. Patent Application No. 09/044,826, entitled "Method and System for Facilitating Access to a Lookup Service," which has previously been incorporated by reference.

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Please replace paragraph 3, pages 12–13 with the following:

The discovery server 214 detects when a new device is added to the exemplary distributed system 100, during a process known as boot and join or discovery, and when such a new device is detected, the discovery server passes a reference to the lookup service 212 to the new device, so that the new device may register its services with the lookup service and become a member of the Djinn. After registration, the new device becomes a member of the Djinn, and as a result, it may access all the services contained in the lookup service 212. The process of boot and join is described in greater detail in co-pending U.S. Patent Application No. 09/044,939, entitled "Apparatus and Method for providing Downloadable Code for Use in Communicating with a Device in a Distributed System," which has previously been incorporated by reference.

**IN THE CLAIMS:**

Cancel claims 1–4 and 10–13 without prejudice or disclaimer of the subject matter thereof. Please amend claim 5 and add new claims 14 and 15, as follows:

5. (Amended) A distributed computer system comprising:
  - a memory containing a first virtual machine;
  - a memory containing a second virtual machine executing a process that receives, from the first virtual machine, a registration of interest in an event and transmits a message in response to the occurrence of the event, the registration of interest and the message including computer code;
  - a memory containing a third virtual machine for receiving the message and executing the computer code; and

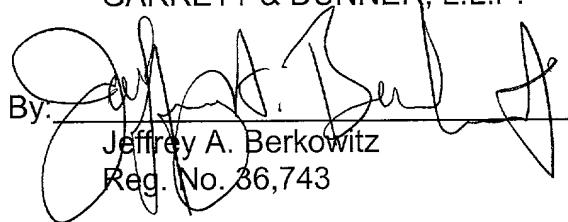
If there is any fee due in connection with the filing of this Preliminary  
Amendment, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

By:

Jeffrey A. Berkowitz  
Reg. No. 36,743



Dated: December 17, 2001

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**APPENDIX:**

**Specification**

On page 1, line 1, after "Provisional U.S. Patent Application No." insert "076,048/60" and delete "\_\_\_\_\_."

On page 1, line 3, after "U.S. Patent Application No." insert "044,923/09" and delete "\_\_\_\_\_."

On page 1, line 4, after "Storage," delete "bearing attorney docket no. 06502.0011 -01000."

On page 1, line 4, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

On page 1, line 5, after "U.S. Patent Application No." insert "044,838/09" and delete

On page 1, line 6, after "Distributed System," delete "bearing attorney docket no. 06502.0011-02000."

On page 1, line 7, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

On page 1, line 8, after "U.S. Patent Application No." insert "044,834/09" and delete "\_\_\_\_\_."

On page 1, line 9, after "Distributed System", delete "bearing attorney docket no. 06502.0011-03000."

On page 1, line 10, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

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On page 1, line 11, after "U.S. Patent Application No." insert "044,916/09" and delete "\_\_\_\_\_."

On page 1, line 12, before "and filed on the same date," delete "bearing attorney docket no. 06502.0011-04000."

On page 1, line 12, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

On page 1, line 13, after "U.S. Patent Application No." insert "044,919/09" and delete "\_\_\_\_\_."

On page 1, line 14, after "Distributed System," delete "bearing attorney docket no. 06502.0062-01000."

On page 1, line 15, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

On page 2, line 1, after "U.S. Patent Application No." insert "044,938/09" and delete "\_\_\_\_\_."

On page 2, line 2, after "Method Invocation," delete "bearing attorney docket no. 06502.0102-00000."

On page 2, line 2, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

On page 2, line 4, after "U.S. Patent Application No." insert "045,652/09, (now U.S. Patent No. 6,134,603)" and delete

On page 2, line 5, after "Remote Methods" delete " bearing attorney docket no. 06502.0103-00000."

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On page 2, line 5, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

On page 2, line 7, after "U.S. Patent Application No." insert "044,790/09" and delete

On page 2, line 8, after Distributed System, delete "bearing attorney docket no. 06502.0104-00000."

On page 2, line 9, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

On page 2, line 10, after "U.S. Patent Application No." insert "044,930/09" and delete

On page 2, line 12, before "and filed on the same date," delete "bearing attorney docket no. 06502.0105-00000."

On page 2, line 12, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

On page 2, line 13, after "U.S. Patent Application No." insert "044,917/09" and delete "\_\_\_\_\_."

On page 2, line 14, after "Remote Methods," delete "bearing attorney docket no. 06502.0106-00000."

On page 2, line 14, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

On page 2, line 16, after "U.S. Patent Application No." insert "044,835/09" and delete "\_\_\_\_\_."

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On page 2, line 17, after "in a Database," delete "bearing attorney docket no. 06502.0107-00000."

On page 2, line 18, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

On page 2, line 19, after "U.S. Patent Application No." insert "044,839/09" and delete "\_\_\_\_\_."

On page 2, line 20, after "in a Database," delete "bearing attorney docket no. 06502.0108."

On page 2, line 20, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

On page 3, line 1, after "U.S. Patent Application No." insert "044,945/09" and delete "\_\_\_\_\_."

On page 3, line 2, after "in a Database, delete "bearing attorney docket no. 06502.0109-00000."

On page 3, line 2, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

On page 3, line 4, after "U.S. Patent Application No." insert "044,931/09" and delete "\_\_\_\_\_."

On page 3, line 5, after "Distributed System" delete "bearing attorney docket no. 06502.0110-00000."

On page 3, line 5, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

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On page 3, line 7, -after "U.S. Patent Application No." insert "044,939/09" and delete "\_\_\_\_\_."

On page 3, line 8, after "Distributed System," delete "bearing attorney docket no. 06502.0112-00000."

On page 3, line 9, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

On page 3, line 10, after "U.S. Patent Application No." insert "044,826/09" and delete "\_\_\_\_\_."

On page 3, line 11, after "Lookup Service," delete "bearing attorney docket no. 06502.0113-00000."

On page 3, line 11, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

On page 3, line 13, after "U.S. Patent Application No." insert "044,932/09" and delete "\_\_\_\_\_."

On page 3, line 14, after "Distributed System," delete "bearing attorney docket no. 06502.0114-00000."

On page 3, line 15, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

On page 3, line 18, after "U.S. Patent Application No." insert "044,936/09" and delete "\_\_\_\_\_."

On page 3, line 19, after "Memory Spaces," delete "bearing attorney docket no. 06502.0116-00000."

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On page 3, line 20, delete, "the same date herewith," and insert "March 20, 1998."

On page 4, line 1, after "U.S. Patent Application No." insert "044,934/09" and delete "\_\_\_\_\_."

On page 4, line 2, before "and filed on the same," delete "bearing attorney docket no. 06502-0117-00000."

On page 4, line 2, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

On page 4, line 3, after "U.S. Patent Application No." insert "044,915/09 (now issued as U.S. Patent No. 6,138,238" and delete "\_\_\_\_\_."

On page 4, line 3, after "Access Control," delete "bearing attorney docket no. 06502.0118-00000."

On page 4, line 4, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

On page 4, line 5, after "U.S. Patent Application No." insert "044,944/09" and delete "\_\_\_\_\_."

On page 4, line 6, before "and filed on the same," delete "bearing attorney docket no. 06502.0119-00000."

On page 4, line 6, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

On page 4, line 7, after "U.S. Patent Application No." insert "044,837/09" and delete "\_\_\_\_\_."

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On page 4, line 8, after "Requirements," delete "bearing attorney docket no. 06502.0120-00000."

On page 4, line 8, after "filed on," insert "March 20, 1998" and delete "the same date herewith."

On page 12, line 19, "after "U.S. Patent Application No.," insert "044,826/09," delete "\_\_\_\_\_."

On page 13, line 6, before "entitled 'Apparatus and Method,'" insert "044,939/09," delete "\_\_\_\_\_."

### **Claims**

5. (Amended) A distributed computer system comprising:  
a memory containing a first virtual machine;  
a memory containing a second virtual machine executing a process that receives, from the first virtual machine, a registration of interest in an event and transmits a message in response to the occurrence of the event, the registration of interest and the message including computer code; [and]  
a memory containing a third virtual machine for receiving the message and executing the computer code; and

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